

# Landscape Design

## Drawing a Landscape Plan: The Base Map

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Preparing a landscape plan can be an enjoyable and satisfying experience with a little homework and some simple guidelines. Though helpful, a landscape base map can be drawn without a computer, special software or even expensive drafting supplies to develop a landscape plan. The first step in preparing a landscape plan is to draw a base map. The base map is an accurate representation of the existing landscape, scaled to fit the paper, showing information such as house dimensions, distance to street, location of trees or woods, and driveway and sidewalks, if these are already present in the landscape.

### What to Include

A good base map should show all buildings, with sidewalks and driveway. The outline or footprint of the house should also include the location of doors, windows, heating and air conditioning units, and spigots. Draw the street in front of the house along with the property lines. The base map should also include the locations of meters, utility boxes and poles as these are expensive to move and require occasional access. Some base maps also show details such as the location of overhead and underground utilities, streams, ditches and any easements or setbacks. Interesting landscape features such as rock outcroppings or streams could also be drawn on landscape base map. This information is usually drawn after a site analysis. (See Fact Sheet 104, *Drawing a Landscape Plan: Site Analysis*, for more information on conducting a site analysis.)

### Drawing Materials

The base map is a plan view drawing, which is a bird's-eye view of the landscape. Features of the landscape are drawn with a sharp pencil or rolling ink pen. The type of writing utensil is up to the person drawing the plan. Some like a mechanical pencil while others prefer an ink pen. Most beginners prefer to draw landscape plans using a regular pencil and a good eraser. Drafting pencils vary, based on the hardness of the lead. The typical rating system for drafting pencils goes from 6H to 6B, where 6H is very hard and light and 6B is very soft and dark. Different pencil lead weights help depict the landscape features in different ways. Ink pens make clearer, darker lines, but erasing is almost impossible. Smearing is a potential problem with ink pens. If used, inexpensive pens with a rolling tip work almost as well as the more expensive professional pens with interchangeable heads.

The type of paper used to draw a landscape plan depends on the type of copy that will be made and how the plan will be used. Landscape architects usually draw on a strong tracing paper called vellum and copy onto bond, which is the same as most computer printers use. Graph paper, whether vellum or bond, helps beginners make accurate measurements and makes it easier to calculate the area of an enclosed space. Each square on the graph paper can be used to represent a specific dimension. For example, if one square equals a square foot, a square that is 4 squares by 4 squares in size would represent 16 square feet.

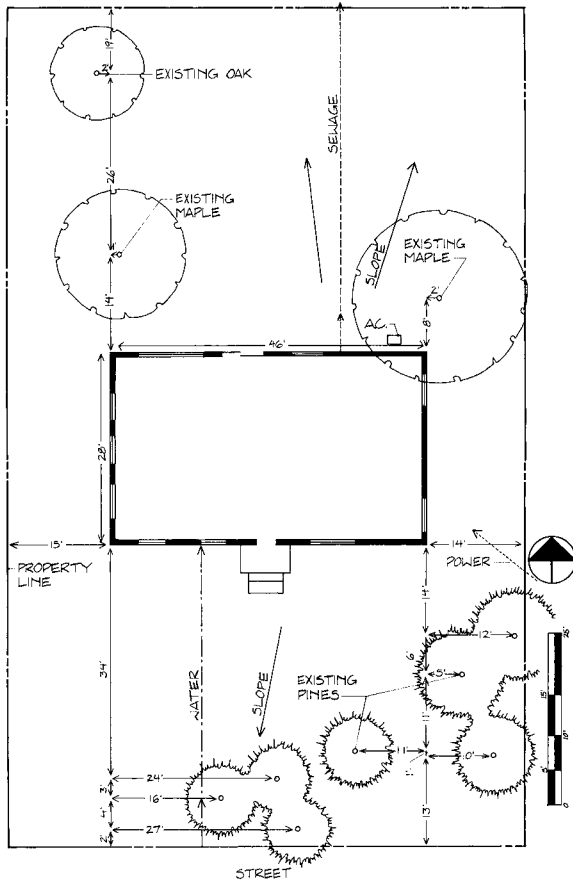


Figure 1. Example of base map

Blue-lined graph paper can be copied and the graph lines will not show if the copier is at a lighter setting. Purple-lined graph paper can be blue-printed and the lines will not print. Graph paper is available in regular white bond paper or special tracing paper called vellum. Vellum paper is easier to erase and it copies and blueprints better than either regular bond or tracing paper. Large graph paper is usually available wherever art supplies are sold and can be found at a blueprint supply companies and internet stores. With a base map complete, tracing paper can be laid overtop to experiment with different landscape ideas.

Straight lines and circles are drawn to represent the elements of the landscape. For example, circles are drawn to represent the approximate area covered by the tree canopy. A common ruler and circular objects such as coins and jar lids can be used, or inexpensive templates are available from office supply stores. Everything can be drawn free-hand, depending on skill and accuracy required.

Drawing boards and drafting tables are used by professionals to provide a clean, smooth surface for drawing. Some come with a sliding straight edge connected. These special boards are expensive for one-time users, but may be worth the expense if

drawing is a frequent activity. Otherwise, the drawing paper can be placed on a clean, smooth table.

## Scaled Drawing

The drawing of the landscape should be scaled to accurately to depict the landscape and allow measurements to be taken from the drawing. A scaled drawing means that measurements taken outside will be drawn in a much smaller dimension on the paper, depending on the size of scale used. A 100-foot long driveway will be drawn in inches on the drawing. Most landscape plans are drawn to a scale of 1:10, which means that 10 feet on the ground equals 1 inch on paper. For example, a 100-foot driveway would be 10 inches on paper. Using a 1:4 scale, 100 feet would be 25 inches on paper. Popular landscape scales are 1:4, 1:5, 1:8, 1:10, 1:16 and 1:20. Scales of 1:4, 1:8 or 1:16 match the common increments used on a conventional ruler, but scales of 1:10 and 1:20 are used by engineers and landscape architects. Scaled rulers, especially for drafting, are available with multiple scale increments marked on them. They are inexpensive and make the drawing easier.

The size of paper and the size of area to represent will determine the scale chosen. The larger the piece of paper, the smaller scale possible, making it easier to read. If the landscape area cannot fit onto the paper without scaling down to a size that is difficult to read, several sheets of paper will be necessary.

## Measuring and Mapping

If the house is fairly new, much of the base information will be found on a property survey, subdivision plat or deed. Current property maps and base information are often available from the local planning office. County tax offices may also be a source of information. If none of these are available, it will be necessary to take the measurements and create a base map. For this job, a 100-foot measuring tape is helpful. First, locate the property corner markers. If none are found, estimate their locations. Measure from each corner point and record this on a sketch of the property. Make the sketch approximately the shape of the property boundary line. This process may take several attempts to get accurate dimensions that fit together to form the boundary, but the time spent

at this step will make the rest of the drawing easier and more accurate.

If the corner markers cannot be found, avoid landscape activity close to the estimated boundary that will impose on neighbors and possibly violate local zoning and building codes. If there is any question about property line location, the cost of a professional surveyor will pay for itself in the long run. If the property is too large to measure, consider mapping just the area chosen for the landscape project.

Measure the street and sidewalk in relation to the property lines before locating the house. In most situations, there are setbacks and easements from the street that could affect the landscape plans, so check with the local planning office to get this information and draw in these lines as well.

Next, take measurements of the house by starting at a corner that faces the street. Sketch in the approximate outline, or footprint, of the house. Show all the corners and turns. Then measure from the first corner of the house to the next point the house changes direction and record this distance on the sketch. Measure from this second point on the house to the street. Keep the measuring tape as straight as possible. Continue along the front of the house, measuring to each turning point, and then out to the street. Every point does not need a measurement to the street. When finished measuring along the front of the house, move to the other three sides. Be sure to measure and locate on the drawing items such as porches, air conditioning

units, steps and the front door. These, and other similar elements, can be critical to the final design. Once the house is measured on all sides, stop and draw a scaled version of the entire house or the portions that relate to the landscape plan. This will serve as guide for the remaining measurements.

With the house drawn on the base map, move out into the yard and record measurements of existing beds, natural areas, individual trees and any other landscape elements such as gardens or dog pens. The easiest way to measure the locations of landscape features is to measure the distance from the house or known location and a second fixed location, such as the street or driveway. This will increase the accuracy of the drawing and make it easier to draw on the plan. For example, to locate a tree in the yard, measure from two different corners on the house to the tree. The two distances can be matched up on the base map to correctly show the location of the tree.

## Copies and Prints

Once the measuring and drawing of all the features is complete, the base map can be “cleaned up” with an eraser or “white out” to remove smudge marks, crooked lines and any other non-essential lines or notes. This drawing can then be copied onto standard white bond paper. Make several copies of the base map without any new project work shown. Any future design work can be drawn on these copies or drawn on tracing paper or vellum laid over the top.

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**Fact Sheet 103**

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